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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
AGA, SORI A	

ART UNIT	PAPER NUMBER
2476	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,979	STIRBU ET AL.	
	Examiner	Art Unit	
	SORI AGA	2476	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-28,32-34,36 and 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-28, 32-34, 36 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendments and accompanying remarks mailed 03/04/2011 have been entered and carefully considered. Claims 16, 17, 19-23,26-28,32-34 and 36 are amended. Claims 29-31 and 37 are cancelled. New claim 38 is added. As a result, claims 16-28, 32-34, 36 and 38 are pending.

Note that applicant's remarks indicate that claims 16-28, 32-34 and 36 are pending. Examiner reads this a minor error and claim 38 is examined with the rest of the claims. Applicant is respectfully requested to address this error in any following communication.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 16-18, 21-25, 28, 32, 34, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune et al. (US PGPUB 2004/0167988 A1) (herein after Rune) in view of Jou et al. (US PGPUB 2005/0036489 A1) (herein after Jou).

Regarding claim 16, Rune teaches a method comprising:

checking a destination address of a received packet and forwarding the packet to at least the first device **[see paragraphs 0214 and 0215 where an address filtering function (intermediate node) receives and passes (forwards) broadcast/multicast packets between the scatternet (first device) and LAN (second device)]**.

However Rune does not explicitly teach comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. However, Jou teaches comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching **[see paragraph 0029 where a wireless transport device (intermediate node) receives a broadcast frame; the wireless transport device determines whether or not the Destination Address field is the same as the local MAC address (predetermined multicast address) of this device; if positive (in response the addresses matching), the wireless transport device drops the frame]**. It would have been obvious for a person having ordinary skill in the art to comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. This is desirable because it allows the system to filter out unnecessary traffic (see paragraph 0019).

Regarding claim 17, Rune teaches a method as claimed in claim 16, wherein the packet is received from a second device, and wherein the method further comprises connecting a first network comprising the first device to a second network comprising the second device, and wherein the first and second networks that use different data transmission protocols **[see paragraphs 0068 and 0069 and fig. 9 where a Network Access Point is used for bridging a Bluetooth scatternet and an Ethernet LAN (different data transmission protocols)]**.

Regarding claim 18, Rune teaches the method as claimed in claim 16, wherein the destination address is an internet protocol address **[see paragraph 0210 where a broadcast ARP request, encapsulated ARP-route request or ARP route request is received at the NAP and where the request contains target IP (Internet Protocol) address]**.

Regarding claim 21, Rune teaches a system comprising: a first device; a second device; and an intermediate node configured to arrange data transmission between the first device and the second device; wherein at least the second device is configured to multicast and/or broadcast packets to devices in the system; and wherein, the intermediate node is configured to forward the packet to at least the first device **[see paragraphs 0214 and 0215 where an address filtering function (intermediate node) receives and passes (forwards) broadcast/multicast packets between the scatternet (first device) and LAN (second device)]**,

However, Rune does not explicitly teach wherein the intermediate node is configured to check a destination address of a packet received from the second device, the intermediate node is configured to compare the destination address of the packet with at least one predetermined multicast and/or broadcast address, and wherein the intermediate node is configured to prevent the transmission of the packet to the first device in response to the addresses matching; and in response to the addresses not matching. However, Jou teaches wherein the intermediate node is configured to check a destination address of a packet received from the second device, the intermediate node is configured to compare the destination address of the packet with at least one predetermined multicast and/or broadcast address, and wherein the intermediate node is configured to prevent the transmission of the packet to the first device in response to the addresses matching; and in response to the addresses not matching **[see paragraph 0029 where a wireless transport device (intermediate node) receives a broadcast frame; the wireless transport device determines whether or not the Destination Address field is the same as the local MAC address (predetermined multicast address) of this device; if positive (in response the addresses matching), the wireless transport device drops the frame].** It would have been obvious for a person having ordinary skill in the art to wherein the intermediate node is configured to check a destination address of a packet received from the second device, the intermediate node is configured to compare the destination address of the packet with at least one predetermined multicast and/or broadcast address, and wherein the intermediate node is configured to prevent the transmission of the packet to the first device in response to the addresses matching; and

in response to the addresses not matching. This is desirable because it allows the system to filter out unnecessary traffic (see paragraph 0019).

Regarding claim 22, Rune teaches an apparatus comprising:

a processor configured to check a destination address of a received packet, forward the packet to at least the first device **[see paragraphs 0214 and 0215 where an address filtering function (intermediate node) receives and passes (forwards) broadcast/multicast packets between the scatternet (first device) and LAN (second device)]**.

However Rune does not explicitly teach comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. However, Jou teaches comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching **[see paragraph 0029 where a wireless transport device (intermediate node) receives a broadcast frame; the wireless transport device determines whether or not the Destination Address field is the same as the local MAC address (predetermined multicast address) of this device; if positive (in response the addresses matching), the wireless transport device drops the frame]**. It would have been obvious for a person having ordinary skill in the art to comparing the destination address of the packet with at least one predetermined multicast

and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. This is desirable because it allows the system to filter out unnecessary traffic (see paragraph 0019).

Regarding claim 23, Rune teaches the apparatus according to claim 22, wherein the packet is received from a second device, and wherein the processor is configured to cause the apparatus to connect a first network comprising the first device to a second network comprising the second device and the first and second networks use different data transmission protocols **[see paragraphs 0068 and 0069 and fig. 9 where a Network Access Point is used for bridging a Bluetooth scatternet and an Ethernet LAN (different data transmission protocols)]**.

Regarding claim 24, Rune teaches the apparatus according to claim 23, wherein the processor is configured to cause the apparatus to perform data transmission between an IEEE 802-based network to which the second device belongs and a bluetooth network to which the first device belongs **[see paragraphs 0068 and 0069 and fig. 9 where a Network Access Point is used for bridging a Bluetooth scatternet and an Ethernet LAN (IEEE 802 based network)]**.

Regarding claim 25, Rune teaches the apparatus according to claim 22, wherein the destination address is an internet protocol address **[see paragraph 0210 where a**

broadcast ARP request, encapsulated ARP-route request or ARP route request is received at the NAP and where the request contains target IP (Internet Protocol) address].

Regarding claim 28, Rune teaches the apparatus according to claim 22, wherein the processor is configured to check, in addition to the comparison of the destination address of the packet with at least one predetermined multicast and/or broadcast address, if the packet complies with one or more further message transmission conditions, and the processor is configured to allow forwarding of the packet to the first device in response to the packet complying with the one or more further message transmission conditions **[See paragraph 0196 lines 10-21 where packet filtering is based on destination address and NAL packet type and based on higher layer protocols (one or more further message transmission conditions)].**

Regarding claim 32, Rune teaches a memory storing a computer program, the computer program configured to control a processor to perform the following:
check a destination address of a received packet; and forwarding the packet to at least the first device **[see paragraphs 0214 and 0215 where an address filtering function (intermediate node) receives and passes (forwards) broadcast/multicast packets between the scatternet (first device) and LAN (second device)]**.
However Rune does not explicitly teach comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the

transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. However, Jou teaches comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching **[see paragraph 0029 where a wireless transport device (intermediate node) receives a broadcast frame; the wireless transport device determines whether or not the Destination Address field is the same as the local MAC address (predetermined multicast address) of this device; if positive (in response the addresses matching), the wireless transport device drops the frame]**. It would have been obvious for a person having ordinary skill in the art to comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. This is desirable because it allows the system to filter out unnecessary traffic (see paragraph 0019).

Regarding claim 34, Rune teaches a memory according to claim 32, wherein the computer program is further configured to control the processor to compare one or more properties of the packet to properties specified in predetermined transmission conditions to determine whether the packet should be forwarded to the first device **[see paragraph 0210 where a broadcast ARP request, encapsulated ARP-route request or ARP route request is received at the NAP and where the request contains target IP**

address and where the address filtering function contained within the NAP determines whether the address corresponds to an address that is stored in the ARP cache; and where the packet is passed to the NAP-B (i.e. forwarded to the scatternet from the LAN) unless that is not addressed to the NAP itself or the address function determines from the address table that the destination node is located on the receiving side -i.e. the side from which the broadcast packet is received].

Regarding claim 38, Rune teaches the apparatus according to claim 27, wherein the processor is configured to cause the apparatus to forward at least broadcast packets relating to address acquisition to the first device **[see paragraph 0082 where the messages can be ARP requests (address acquisition)]**.

4. Claims 19,20,26,27 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Rune as applied to claims 16-18, 21-25, 28, 32, 34, and 38 above and further in view of Vasisht (US 2004/0133689).

Regarding claim 19, Rune teaches a method as claimed in claim 16 as discussed above. However, Rune does not explicitly teach the packet is received from a second device, and wherein the first device belongs to a mobile handheld subcommittee domain of a universal plug and play system and the second device belongs to a home network version 1 domain of the universal plug and play system. However, Vasisht teaches using UPnP in one of the networks **[paragraph 0051 line 24].** It would have been obvious for a person

having ordinary skill in the art to utilize UPnP (various versions include MHS and Home network version) in one of the networks. UPnP (both the Home network and MHS versions) is desirable because it allows devices to connect seamlessly.

Regarding claim 20, Rune teaches a method as claimed in claim 19 including preventing multicast packet to the first device as discussed above. However, Rune does not explicitly teach Universal Plug and Play-UPnP. However, Vasisht teaches using UPnP in one of the networks **[paragraph 0051 line 24].** It would have been obvious for a person having ordinary skill in the art to utilize UPnP in one of the networks. UPnP is desirable because it allows devices to connect seamlessly.

Regarding claim 26, Rune teaches the apparatus according to claim 22 as discussed above. However, Rune does not explicitly teach the packet is received from a second device, and wherein the processor is configured to cause the apparatus to provide data transmission between the first device belonging to a mobile handheld subcommittee domain of a universal plug and play system and the second device belonging to a home network version 1 domain of the universal plug and play system. However, Vasisht teaches using UPnP in one of the networks **[paragraph 0051 line 24].** It would have been obvious for a person having ordinary skill in the art to utilize UPnP (various versions include MHS and Home network version) in one of the networks. UPnP (both the Home network and MHS versions) is desirable because it allows devices to connect seamlessly.

Regarding claim 27, Rune teaches the apparatus according to claim 25, wherein the processor is configured to prevent transmission of universal plug and play discovery multicast message to the first device, and the apparatus is configured to forward at least the broadcast messages relating to the address definition to the first device. However, Vasisht teaches using UPnP in one of the networks **[paragraph 0051 line 24].** It would have been obvious for a person having ordinary skill in the art to utilize UPnP (various versions include MHS and Home network version) in one of the networks. UPnP (both the Home network and MHS versions) is desirable because it allows devices to connect seamlessly.

Regarding claim 33, Rune teaches a memory according to claim 32 as discussed above. However, Rune does not explicitly teach the computer program is further configured to control the processor to prevent transmission of universal plug and play discovery multicast packets to the first device. However, Vasisht teaches using UPnP in one of the networks **[paragraph 0051 line 24].** It would have been obvious for a person having ordinary skill in the art to utilize UPnP (various versions include MHS and Home network version) in one of the networks. UPnP (both the Home network and MHS versions) is desirable because it allows devices to connect seamlessly.

5. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rune as applied to claims 16-18, 21-25, 28, 32, 34, and 38 above, and further in view of Tung (US 2006/0136562 A1) (herein after Tung).

Regarding claim 36, Rune teaches the apparatus according to claim 22 as discussed above. However, Rune does not explicitly teach wherein the processor is configured to check whether the first device is in sleep mode and, when the first device is in sleep mode, the processor is configured to wake up the first device before forwarding the packet to the first device. However, Tung in the same field of endeavor teaches a network node such as a multimedia server that operates in sleep mode and is only activated when receiving a request **[see paragraph 0006 and paragraph 0002]**. It would have been obvious for a person having ordinary skill in the art, at the time of the invention, to check whether the nodes in Rune are in sleep mode and when it is in sleep mode wake up the node before transmitting a message to the server. This is desirable because it provides for power savings.

Response to Arguments

6. Applicant's arguments with respect to claims 16-28, 32-34, 36 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SORI AGA whose telephone number is (571)270-1868. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. A./
Examiner, Art Unit 2476

/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art Unit 2476